

**Notice of Allowability**

Application No.

10/805,786

Applicant(s)

SPADACCINI ET AL.

Examiner

Louis J. Casaregola

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicants' paper of 10/31/07.
2. ☒ The allowed claim(s) is/are 1-16, 18-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                               | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material         | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

### ***Reasons For Allowance***

The present invention is a fuel delivery system intended for a propulsion system and including a deoxygenator, i.e. a device that removes dissolved oxygen from the fuel. As modified by applicants' latest amendment, all claims now further require the fuel delivery system to include a catalyst that receives fuel from the deoxygenator and initiates endothermic fuel decomposition. The use of deoxygenators in fuel systems, while not common, is in fact known in the art, as indicated by the previously cited Spadaccini '815 Patent. Spadaccini's fuel system includes no catalyst but has obvious utility in combustion devices that employ catalysts, such as turbines with catalytic combustors of the type shown in the previously cited Pfefferle Patent. The catalysts in such devices, however, act to initiate fuel combustion, which is an exothermic reaction. These catalysts thus function in the opposite manner from the claimed catalyst. The cited prior art also includes a recently submitted Japanese publication (09-235566) along with a Japanese office action that applies the reference to claims in the present case. This material has been reviewed but has not, however, been found to be any more relevant than the previously cited US patents. The Japanese reference discloses the step of supplying deoxygenated fuel to a desulfurization catalyst, rather than an endothermic fuel decomposition catalyst. None of the references of record, moreover,

Art Unit: 3746

disclose or fairly suggest the concept of supplying fuel from a deoxygenator to a catalyst that is operable to initiate endothermic fuel decomposition. The claimed invention is therefore considered patentable over the prior art.



L. J. Casaregola  
571-272-4826 (M-F; 7:30-4:00)  
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November 13, 2007

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Devon Kramer, can be reached at 571-272-7118.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).